

RESOURCE CONSERVATION DISTRICT
VENTURA COUNTY

2008 WMA Base Funding Work Plan

Member of the Ventura WMA

Title: Watershed Inventory for Weed Eradication

January 1, 2009 – December 31, 2009

Contract Lead Group

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Please confirm: all projects described in this work plan will be in one contract with Ventura County Resource Conservation District

Confirmed - one contract with Ventura County Resource Conservation District.

RESOURCE CONSERVATION DISTRICT VENTURA COUNTY

Proposed Rapid Watershed Inventory of Ventura County July 2008

I. PURPOSE

This work will inventory environmental data from multiple agencies and partners for the purpose of developing a Rapid Watershed Inventory for the successful management of invasive species within Ventura County watersheds.

II. INTRODUCTION

a. Ventura County Resource facts

- Ventura County is the 17th most important agricultural producing county of the 3,175 counties in the United States,
- There are over 28,000 acres of gullies and badlands in the southern half of Ventura County producing an estimated 880,000 tons of sediment per year.
- Our cropland can withstand the loss of 2 to 5 tons of topsoil a year without losing the capacity to sustain crop yields.
- About one-fourth of our cropland is eroding at rates that, if continued, will reduce yields.
- Approximately 13.5% of our irrigated acres (22 square miles) are affected by seawater intrusion.
- Groundwater basins supply approximately 70% of the water used in the county, and are currently over drafted at a rate of about 80,000 acre feet per year.

Ventura County has three distinct watersheds; (a) Ventura River, (b) Santa Clara River, (c) Calleguas Creek. It is located in the central and southern region of California. Spanning 1,845 square miles, its topography ranges from coastal mountains, through rich farmland to a coastal plain. The area supports habitats rich in biological value, with numerous endemic plants and rare and endangered wildlife species. Ecosystem health is challenged and precariously centered around the availability of water, which is a rare and vital desert resource.

b. Impacts of Invasive Species

Non-native plants (invasive weeds) are one of several factors degrading the habitats of the Ventura County. Species like salt cedar and Arundo crowd out native vegetation and reduce available space for wildlife. They also consume large volumes of water, greatly reducing the supply for other species. Invasive species also suppress natives, act as agricultural pests and generally reduce the biological, recreational, and economic value of the land.

Ecosystem Processes - Invasive plants drastically alter the natural balance of an ecosystem, which takes thousands of years to develop. They may change the patterns and intensity of fire, alter soil erosion, and reduce the quantity and quality of water resources.

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Wildlife - Salt cedar and other non-native plants decrease habitat for wildlife. Salt cedar also prevents wildlife from accessing water sources by forming impenetrable thickets and depleting the supply of surface water.

Agriculture - Invasive plants cause large economic losses for both cropland and rangeland. They compete with crops for soil and water, and reduce the availability of suitable forage for livestock.

Biological Diversity - Non-natives are one of the greatest threats to endangered species, second only to the loss of habitat. Invasive plants out compete natives, reducing the complexity of population structures and genetic banks of individual species. Some invasive plants even prevent re-establishment of native species by building up inhibitory chemicals in the soil. Most notably, salt cedar has been found to raise soil salinity to levels that are toxic for native desert cottonwoods and willows.

Water Availability - *Many* non-native plants consume large amounts of water, drastically reducing the supply for the rest of the ecosystem. Arundo and salt cedar have been shown to deplete surface waters and lower the groundwater table, and they also grow in dense thickets on the banks of rivers and canals which reduces channel widths, increases sedimentation and reduces water flow.

c. Current Weed Management Approaches

Because invasive species lack jurisdictional boundaries, a locally led partnership is required to successfully combat infestations. State level Weed Management Areas (WMA) provide the framework to coordinate the weed management plans of federal, state, and local government agencies, as well as tribal governments, individuals, and various other groups. A successful WMA need to base planning efforts off of a full and accurate database to ensure strategic priorities and appropriate conservation plans are developed.

III. OBJECTIVES

To improve WMA planning capabilities, this work will generate a searchable information archive that contains environmental data for the local watersheds. The project will involve a year long rapid watershed inventory, during which time environmental data from partners will be collected and organized into an electronic, searchable archive. The product will be made available in an electronic format to ensure WMA partners and other land managers can easily access the information. The searchable component will assist with the planning process by enabling the user to identify and prioritize future projects. Archived data will include (but not be limited to): distributions of non native species, evapotranspiration levels, erosion rates and water quality.

The archive will be particularly useful in demonstrating the high rate of water usage by invasive species, and will provide a definitive need for water conservation through the suppression of water guzzling invasive species. The product will therefore apply to other NRCS programs including the Environmental Quality Incentives Program, the Wetlands Reserve Program, the Wildlife Habitat Incentives program, the Small Watershed Program, and the Conservation Technical Assistance program. We invite your agency to be a part of this process, and to use the product for your agency purposes once it is available.